Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WP Docket No. 06-150
	)	
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
	)	
	)	

COMMENTS OF THE STATE OF CALIFORNIA

The State of California as represented by its Department of General Services, Telecommunications Division (hereinafter "State") hereby submits these comments in response to the Commission's *Second Further Notice of Proposed Rulemaking and Order (hereinafter "FNPRM")* in the above-captioned proceeding.

INTRODUCTION

The State operates an extensive array of land mobile radio communications systems for use by various California public safety agencies, including the California Highway

Patrol, the Department of Forestry and Fire Protection, the Department of Transportation, the Department of Parks and Recreation, the Department of Fish and Game, the Department of Corrections and Rehabilitation, the Department of Water Resources, the Department of Justice, the Emergency Medical Services Authority, and the Governor's Office of Emergency Services. We routinely assess the functional and operational needs of California's public safety agencies for radio voice and data communications needs.

The State also is an active participant in various committees and work groups discussing the radio voice and data communications needs of tribal, county, and local public safety agencies. As such, the State has developed a balanced perspective on public safety challenges facing California and the nation which it has drawn upon in commenting on the following topics.

ROLE OF THE STATE

In the subject FNPRM, the Commission sought comments on the potential role of State governments in coordinating the participation of the public safety providers in their jurisdictions in facilitating the deployment of a nationwide, interoperable broadband network[1].

In California, no organization or entity has the legislated authority or funding necessary to assume the statewide responsibility for such coordination. That is, the State does not have legislated authority or funding to regulate/ coordinate any

[1] See FCC 08-128 ¶ 52

government entities other than its own State agencies. Neither is the California Statewide Interoperable Executive Committee (CalSIEC) empowered or funded to do so.

CONTINUOUS OR ROUTINE VIDEO SURVEILLANCE

The Commission sought comments on whether there are any particular services or applications that might be too inefficient or far removed from typical public safety communications needs, or that may overburden or otherwise not be viable for a broadband network[2].

The State notes that indiscriminant use of video applications on the Shared Wireless Broadband Network (hereinafter "SWBN") could overburden the network and render it unviable for public safety services. Whereas infrequent or "emergency" use of video surveillance by Public Safety agencies should be allowed for limited intervals, continuous or routine video surveillance from fixed locations by Public Safety agencies should be restricted (perhaps by developing a graduated fee structure that would discourage high bandwidth usage). A second tier priority could be considered to allow for limited transmission of routine video during off-peak times. The SWBN should allow for the transmission of images such as fingerprints, blueprints, and photographs.

Other frequency bands available to public safety users more appropriate for fixed video applications include the 50 MHz of spectrum comprising the 4,940 to 4,990 MHz band. This band is authorized for public safety use, and may be suitable for video applications.

NETWORK CAPACITY

[2] See FCC 08-128 ¶78

A graduated fee structure should be developed taking the amount of bandwidth used and the area served into account. On the one extreme, the capacity of the SWBN should be large enough to accommodate the public safety traffic loading needs imposed by serving San Francisco County with a population density of about 3,460 people per square mile. On the other extreme, the SWBN should ultimately be available to some predefined minimum level throughout lightly populated areas such as Modoc County with a population density of about 2 people per square mile. Monitoring the capacity requirements of each public safety entity will be important in ensuring that the SWBN has adequate capacity to accommodate public safety's needs. This capacity should also be adjusted to include a reasonable amount of excess capacity to accommodate emergencies. Ideally, monitoring should discriminate between different data applications, identifying the range of capacity needed by the network.

The Public Safety Broadband Licensee (PSBL) needs the network monitoring data to monitor PS agencies usage of the network including usage by public safety applications. With such a tool, the PSBL will be able to assist the D Block Licensee (DBL) in making capacity upgrade planning decisions. While the PSBL can predict routine traffic loads, system loading resultant from emergent events is totally unpredictable. The State again emphasizes, the network must allow for excess capacity to accommodate both planned and unplanned multi-jurisdictional/multidiscipline events, exercises and emergencies.

D BLOCK LICENSEE RIGHT TO RECOVER COSTS

The implementation of each incremental portion of the SWBN must be economically viable for the DBL; otherwise the venture will fail. Negotiations between the DBL and the Public Safety Broadband Licensee (PSBL) must be guided by this reality. However, the economic viability of providing service must be evaluated over a relatively large geographic area, if not nationwide. For example, the State believes it would be both acceptable and reasonable to implement a small incremental cost increase in a "heavy use" area as a means of offsetting the cost for providing service to a "low use" area. Increasing the total coverage area should become the driving factor.

JUDICIOUS CHOICE OF TECHNOLOGY

The judicious choice of technology alternatives could assist in ensuring the SWBN is viable. That is, technologies more appropriately deployed in metropolitan areas may prove prohibitive to deploy in sparsely populated rural areas, and vice versa. In fact, each area may be better served by different technologies. Since multiple modes of operation are increasingly typical in today's subscriber units, the State believes that the economic and technological advantages of differing technologies should be carefully weighed. The economic and technological viability of the SWBN may depend upon the selection of alternative solutions. In addition, the design of the SWBN also should keep pace with future advancements in wireless broadband networks.

EVENTS CONSTITUTING AN "EMERGENCY"

Relative to the Commission's request as to which specific events constitute an "emergency"[3], the State notes that the following would typically constitute an emergency:

- The declaration of a state of emergency by the President or a state governor.
- The issuance of an evacuation order by the President or a state governor impacting areas of significant scope.
- The issuance by the National Weather Service of a hurricane or flood warning likely to impact a significant area.
- The occurrence of other major natural disasters, such as tornado strikes, tsunamis, earthquakes, or pandemics.
- The occurrence of manmade disasters or acts of terrorism of a substantial nature.
- The occurrence of power outages of significant duration and scope.

The following might constitute an emergency depending on the severity of its implications to California:

- The elevation of the national threat level, as determined by the Department of Homeland Security, to either orange or red for any portion of the United States, or the elevation of the threat level in the airline sector or any portion thereof, as determined by the Department of Homeland Security, to red.

It is important to note that, given an "emergency" condition in the State, the communications needs associated with that event remain throughout the duration of the

[3] See FCC 08-128 ¶ 86

event. That is, public safety's communications needs for the emergency event could extend anywhere from minutes to days (or weeks in the case of catastrophic events). Thus, it also would be important to have a definable "end" to the emergency.

STATE, REGIONAL, OR LOCAL SWBN IMPLEMENTATIONS

In the FNPRM, the Commission posed the alternative of independent regional, state, and local implementations of broadband networks[4]. The vision of a nationwide Shared Wireless Broadband Network (SWBN) cannot be realized through the deployment of a multitude of discreet systems. Public safety entities have limited funding available with which to build their own systems. Some public safety agencies in urban areas would likely implement broadband networks, but those in rural areas would find it harder to justify building a local or regional broadband network. Ultimately aggregating those broadband networks into a composite network may be as problematic as combining today's public safety wireless voice radio systems into a composite system of systems.

CONCLUSION

The vision of the nationwide public safety shared wireless broadband network is an innovative one. The notion of providing incentives to a commercial provider to front the costs and implement such a network is laudable, and can be realized. The bulk of the burden for seeing this through to success lies with the PSBL, the DBL, and the Commission. Although the State lacks the legislated authority and funding to accept the responsibility for coordinating implementations within its boundaries for non-State

[4] See FCC 08-128 ¶ 211

agencies, it is willing to be involved in sorting through the associated challenges leading to a solution.

Respectfully submitted,

STATE OF CALIFORNIA

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